## GLC40 Commercial

## 40 Watt Global Performance Switchers



## SPECIFICATIONS:

## Ac Input

$90-264 \mathrm{Vac}, 47-63 \mathrm{~Hz}$ single phase.

## Input Current

Maximum input current at $120 \mathrm{Vac}, 60 \mathrm{~Hz}$ with full rated output load not to exceed 1.3 A.

## Output Power

Normal continuous output power is 40 W for unrestricted natural convection cooling, 45 W peak for 60 seconds. During peak load conditions output regulation may exceed total regulation and noise limits.

## Output Regulation

Regulation for multiple-output models measured by $\pm 40 \%$ load change from $60 \%$ rated load with all other outputs at $60 \%$ full rated load and a line voltage change from low line to high line. Initial set tolerance is measured with all outputs at $60 \%$ of full rated load. Output voltage V1 requires $20 \%$ load for proper regulation of multipleoutput models. Regulation for single-output models measured by changing from $5 \%$ to $50 \%$ load or $50 \%$ load to full load in either direction.

## Power Limit

Factory set to begin power limiting at approximately 55 W . Fully protected against short circuit and output overload. Short circuit protection is cycling type power limit.

## Output Noise

$0.5 \% \mathrm{rms}, 1 \% \mathrm{pk}-\mathrm{pk}$, 20 MHz bandwidth, differential mode. Measured with noise probe directly across output terminals of the power supply.

## Transient Response

Main Output: $500 \mu$ s typical response time for return to within $0.5 \%$ of final value for a $50 \%$ load step change, $\mathrm{si} /$ $\Delta t<0.2 \mathrm{~A} / \mu \mathrm{s}$. Maximum voltage deviation is $3.5 \%$. Startup/ shutdown overshoot less than $3 \%$.

## Overvoltage Protection

Built in on V1 with firing point set per table. OVP firing reduces output \#1 and \#2 to less than $50 \%$ of nominal voltage in 50 ms .

## FEATURES:

- Cost-effective power source
- Universal input 90-264 Vac
- 2-year warranty
- Single and multiple outputs
- Overload and overvoltage protection
- Built-in EMI filter
- UL1950, CSA-C22.2 No. 234 Level 3, IEC950 and EN60950
- Operation at no-load
- C $€$ marked to LVD


## Voltage Adjust

Factory set on standard unit; however, optional potentiometer adjusts voltage from 4.7 V to OVP point (6.2 V nominal) on the +5 V output.

## Efficiency

$70 \%$ typical depending on model.

## Turn-on Time

Less than 1 second at $120 \mathrm{Vac}, 25^{\circ} \mathrm{C}$ (inversely proportional to input voltage and thermistor temperature).

## Input Protection

Internal ac fuse provided on all units. Designed to blow only if a catastrophic failure occurs in the unit. Fuse does not blow on overload or short circuit.

## Inrush Current

Inrush limited by internal thermistors. Inrush at 240 Vac, averaged over the first ac half-cycle under cold start conditions will not exceed 37 A .

## Temperature Coefficient

$0.03 \% /{ }^{\circ} \mathrm{C}$ typical on all outputs.

## EMI/EMC Compliance

All models include built-in EMI filtering to meet the following emissions requirements:
EMI SPECIFICATIONS COMPLIANCE LEVEL Conducted Emissions EN55022 Class A; FCC Class A Static Discharge EN5022 Class A; FCC Class A RF Field Susceptibility Fast Transients/Bursts Surge Susceptibility EN61000-4-3, $3 \mathrm{~V} /$ meter EN61000-4-4, $2 \mathrm{kV}, 5 \mathrm{kHz}$ EN61000-4-5, 1 kV diff., 2 kV com.

## Safety

All GLC models are approved to UL1950, CSA-C22.2 No. 234 Level 3, IEC950 and EN60950.

## GLC40 Commercial 40 Watt Multiple Output

| Commercial Model | Output No. | Output | Output Minimum | Output Maximum | V1 OVP Set | Noise P-P | Total Regulation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GLC40A | 1 | +5.1 V | 1 A | 3 A | $+6.2 \pm 0.6 \mathrm{~V}$ | 50 mV | 2\% |
|  | 2 | +12 V | 0 A | 2 A |  | 120 mV | 6\% |
|  | 3 | -12 V | 0 A | 0.4 A |  | 120 mV | 5\% |
| GLC40B | 1 | +5.1 V | 1 A | 3 A | $+6.2 \pm 0.6 \mathrm{~V}$ | 50 mV | 2\% |
|  | 2 | +15 V | 0 A | 1.5 A |  | 150 mV | 6\% |
|  | 3 | -15 V | 0 A | 0.4 A |  | 150 mV | 5\% |
| GLC40D | 1 | +5 V | 1 A | 3 A | $+6.2 \pm 0.6 \mathrm{~V}$ | 50 mV | 2\% |
|  | 2 | +24 V | 0 A | 1 A |  | 240 mV | 6\% |
|  | 3 | -12 V | 0 A | 0.4 A |  | 120 mV | 5\% |
| GLC40-3.3 | 1 | 3.3 V | 0 A | 8 A | $+4.2 \pm 0.6 \mathrm{~V}$ | 33 mV | 2\% |
| GLC40-5 | 1 | 5 V | 0 A | 8 A | $+6.2 \pm 0.6 \mathrm{~V}$ | 50 mV | 2\% |
| GLC40-12 | 1 | 12 V | 0 A | 3.3 A | $+14 \pm 1.1 \mathrm{~V}$ | 120 mV | 2\% |
| GLC40-15 | 1 | 15 V | 0 A | 2.7 A | $+18.5 \pm 1.5 \mathrm{~V}$ | 150 mV | 2\% |
| GLC40-24 | 1 | 24 V | 0 A | 1.7 A | $+28.5 \pm 2.5 \mathrm{~V}$ | 240 mV | 2\% |
| GLC40-28 | 1 | 28 V | 0 A | 1.4 A | $+34 \pm 2.8 \mathrm{~V}$ | 280 mV | 2\% |
| GLC40-48 | 1 | 48 V | 0 A | 0.83 A | $+55 \pm 4.0 \mathrm{~V}$ | 480 mV | 2\% |

## GLC40 MECHANICAL SPECIFICATIONS

| J1 CONNECTOR: |  | AMP P/N 640445-3 <br> W/CENTER PIN REMOVED, <br> 0.156 [ 3.96 mm ] CTR HEADER |  |
| :---: | :---: | :---: | :---: |
| J2 CONNECTOR: |  | AMP P/N 640445-6, <br> 0.156 [ 3.96 mm ] CTR HEADER |  |
| INPUT: J1 | PIN 1) AC LINE <br> PIN 2) AC NEUTRAL |  |  |
| OUTPUT: | J2 | MULTI OUTPUT MODELS | SINGLE OUTPUT MODELS |
|  | PIN 1 | OUTPUT \#2 | OUTPUT \#1 |
|  | PIN 2 | OUTPUT\#1 | OUTPUT \#1 |
|  | PIN 3 | OUTPUT\#1 | OUTPUT \#1 |
|  | PIN 4 | COMMON | COMMON |
|  | PIN 5 | COMMON | COMMON |
|  | PIN 6 | OUTPUT \#3 | COMMON |

MATING CONNECTORS AMP P/N

|  | HOUSING | CONTACT |
| :--- | :--- | :--- |
| INPUT | $640250-3$ | $770476-1$ |
| OUTPUT | $640250-6$ | $770476-1$ |

NOTE: 5A MAXIMUM RECOMMENDED CURRENT PER CONNECTOR PIN OPTIONAL ENCLOSURE (P/N 08-30466-1040)
WEIGHT: 1.0 LBS MAX. [ 0.45 kg MAX.]
TOLERANCES: $\mathrm{X} . \mathrm{XX}=0.030[0.76 \mathrm{~mm}]$


| Environmental <br> Specification | Operating | Non-operating |
| :--- | :---: | :---: |
| Temperature (A) | 0 to $50^{\circ} \mathrm{C}$ | -40 to $+85^{\circ} \mathrm{C}$ |
| Humidity (A) | 0 to $95 \% \mathrm{RH}$ | 0 to $95 \% \mathrm{RH}$ |
| Shock (B) | $20 \mathrm{~g}_{\mathrm{pk}}$ | $40 \mathrm{~g}_{\mathrm{pk}}$ |
| Altitude | -500 to $10,000 \mathrm{ft}$ | -500 to $40,000 \mathrm{ft}$ |
| Vibration (C) | $1.5 \mathrm{~g}_{\mathrm{rms}}, 0.003 \mathrm{~g}^{2} / \mathrm{Hz}$ | $5 \mathrm{~g}_{\mathrm{rms}}, 0.026 \mathrm{~g}^{2} / \mathrm{Hz}$ |

A. Units should be allowed to warm up/operate under non-condensing conditions before application of power. Derate output current and total output power by $2.5 \%$ per ${ }^{\circ} \mathrm{C}$ above $50^{\circ} \mathrm{C}$
B. Random vibration-10 to $2000 \mathrm{~Hz}, 6 \mathrm{~dB} /$ octave roll-off from 350 to $2000 \mathrm{~Hz}, 3$ orthogonal axes. Tested for 10 min ./axis operating and 1 hr ./axis non-operating.
C. Shock testing-half-sinusoidal, $10 \pm 3 \mathrm{~ms}$ duration, $\pm$ direction, 3 orthogonal axes, total 6 shocks.

